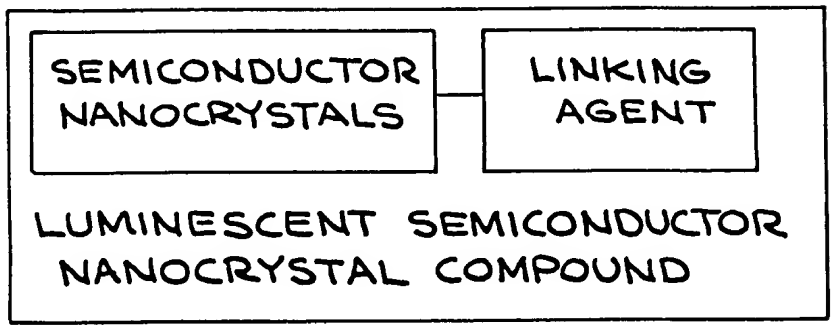

FIG. 1

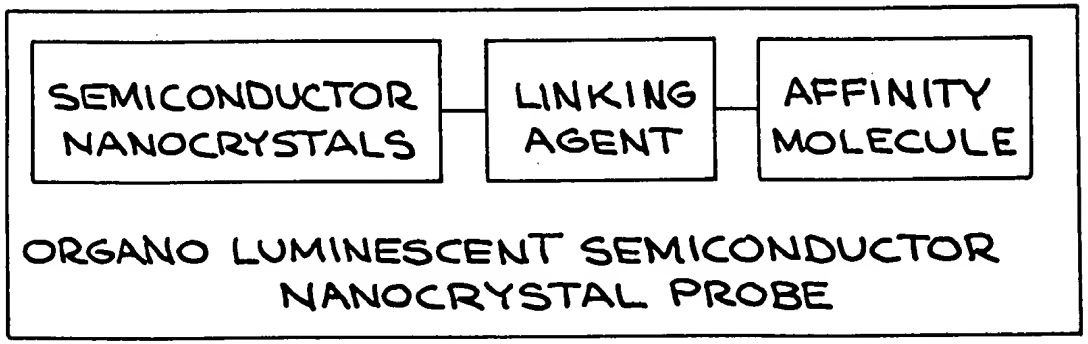

FIG. 2

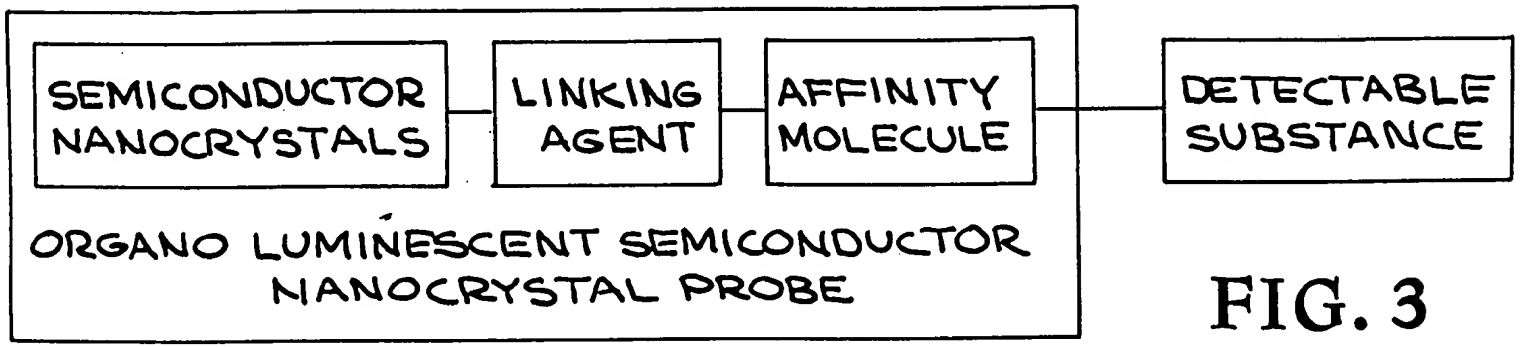

FIG. 3

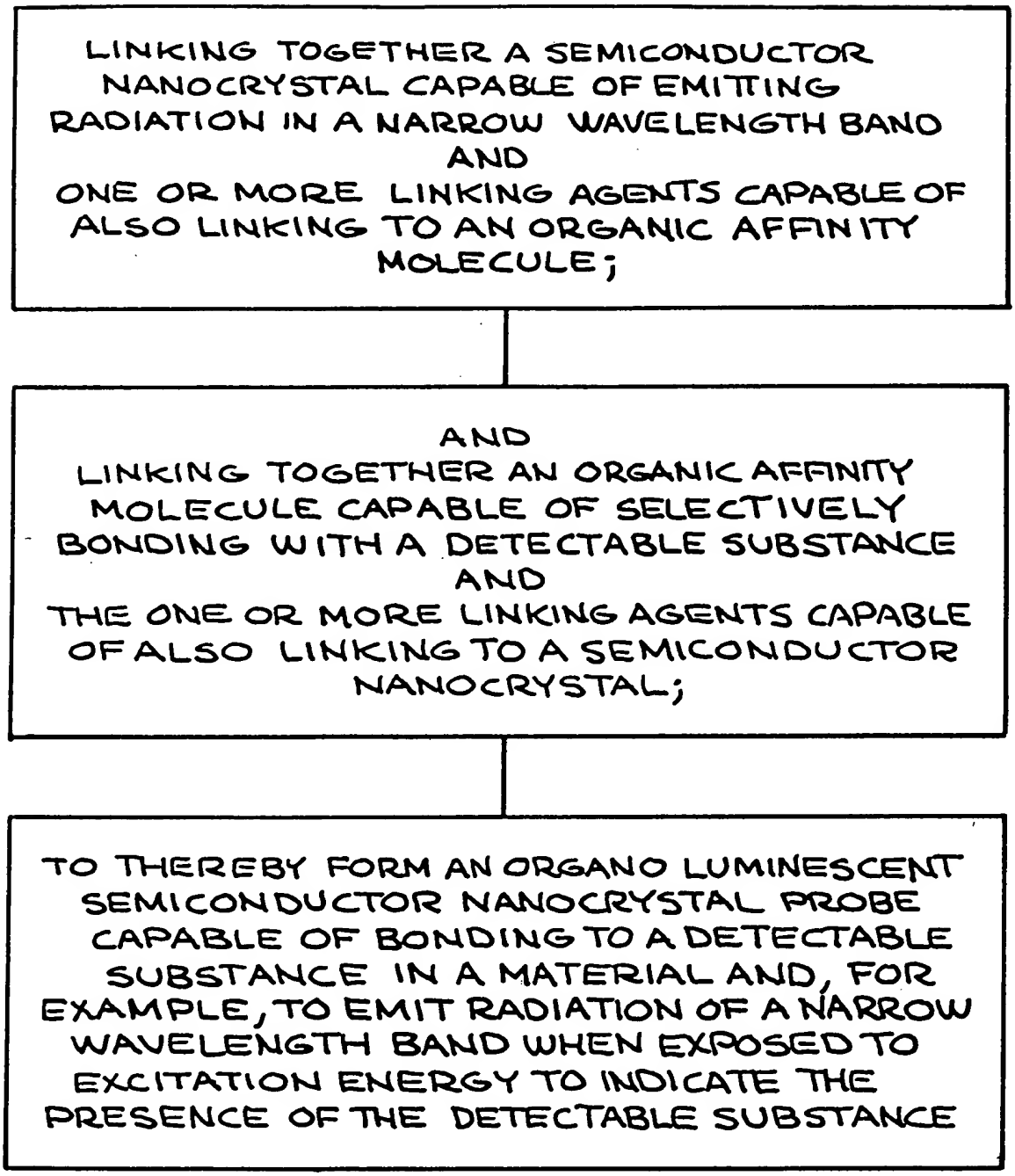

FIG. 4

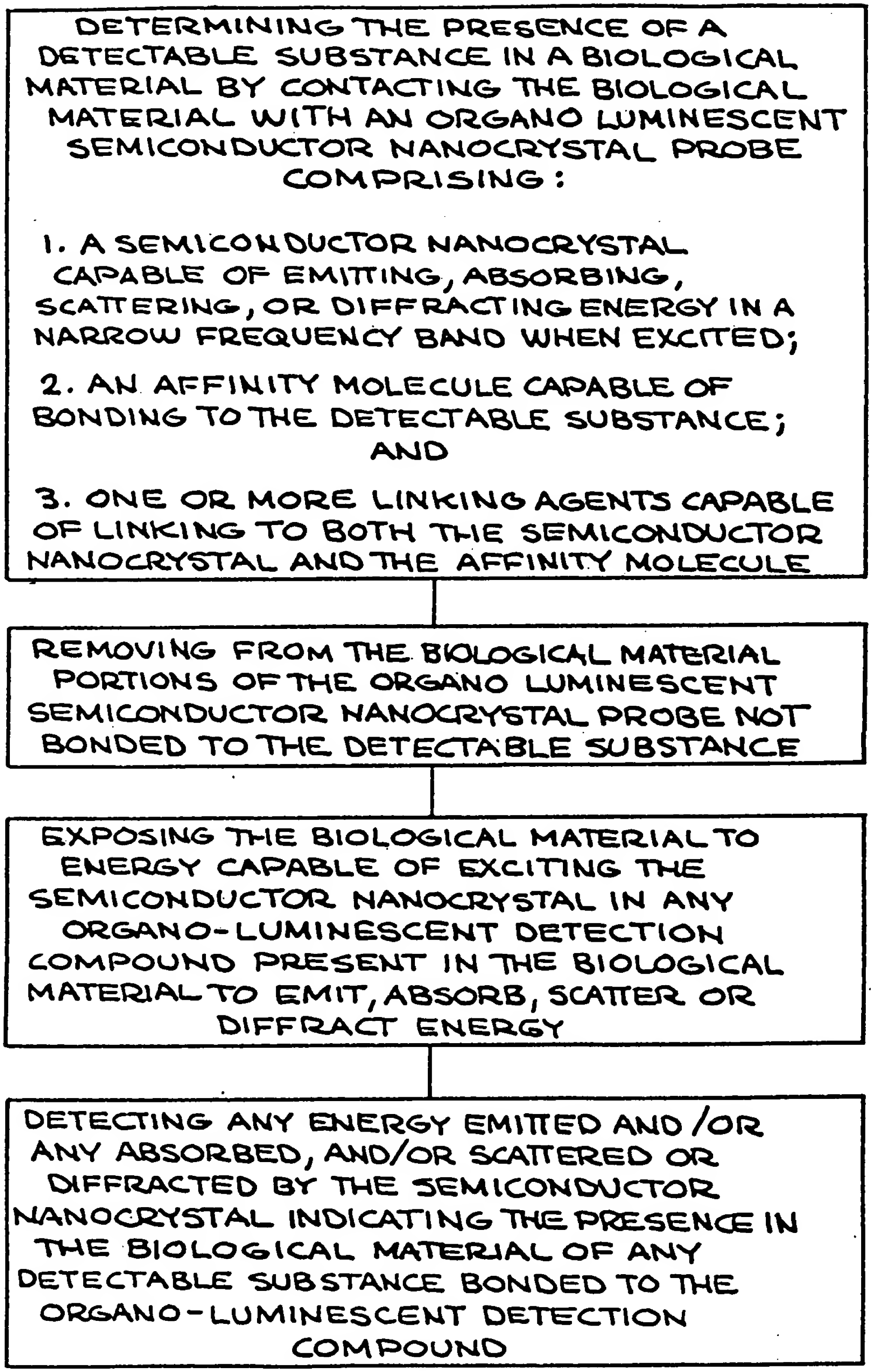
DETERMINING THE PRESENCE OF A DETECTABLE SUBSTANCE IN A BIOLOGICAL MATERIAL BY CONTACTING THE BIOLOGICAL MATERIAL WITH AN ORGANO LUMINESCENT SEMICONDUCTOR NANOCRYSTAL PROBE COMPRISING:
1. A SEMICONDUCTOR NANOCRYSTAL CAPABLE OF EMITTING, ABSORBING, SCATTERING, OR DIFFRACTING ENERGY IN A NARROW FREQUENCY BAND WHEN EXCITED;
2. AN AFFINITY MOLECULE CAPABLE OF BONDING TO THE DETECTABLE SUBSTANCE; AND
3. ONE OR MORE LINKING AGENTS CAPABLE OF LINKING TO BOTH THE SEMICONDUCTOR NANOCRYSTAL AND THE AFFINITY MOLECULE
REMOVING FROM THE BIOLOGICAL MATERIAL PORTIONS OF THE ORGANO LUMINESCENT SEMICONDUCTOR NANOCRYSTAL PROBE NOT BONDED TO THE DETECTABLE SUBSTANCE
EXPOSING THE BIOLOGICAL MATERIAL TO ENERGY CAPABLE OF EXCITING THE SEMICONDUCTOR NANOCRYSTAL IN ANY ORGANO-LUMINESCENT DETECTION COMPOUND PRESENT IN THE BIOLOGICAL MATERIAL TO EMIT, ABSORB, SCATTER OR DIFFRACT ENERGY
DETECTING ANY ENERGY EMITTED AND/OR ANY ABSORBED, AND/OR SCATTERED OR DIFFRACTED BY THE SEMICONDUCTOR NANOCRYSTAL INDICATING THE PRESENCE IN THE BIOLOGICAL MATERIAL OF ANY DETECTABLE SUBSTANCE BONDED TO THE ORGANO-LUMINESCENT DETECTION COMPOUND

FIG. 5